



SUBSTITUTE SPECIFICATION DRAFT

a. **TITLE OF INVENTION**
SAFETY CARTRIDGE

b. **CROSS-REFERENCES TO RELATED APPLICATIONS**

This application is entitled to the benefit of the Provisional Patent Application Number 60/400.855, Conformation Number 9832, and Filing Date 08/05/2002. This information relates to Firearm Safety Devices, specifically an improved device for stopping accidental discharging of any firearm.

c. **FEDERALLY SPONSORED RESEARCH AND DEVELOPMENT**
Not Applicable

d. **NAMES OF PARTIES TO A JOINT RESEARCH AGREEMENT**
Not Applicable

e. **MATERIAL SUBMITTED ON A COMPACT DISC**
Not Applicable

f. BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention is related to the field of firearms and firearm safety devices.

2. Description of the Related Art

The most widely used gun locks are two piece devices that snap together over a trigger guard and prevent access to the trigger. These devices typically use a pin and tumbler mechanism and are opened by a key. A drawback to this type of lock is the time required to find the key, unlock the guard and then possibly load the gun. In an emergency situation there may not be enough time to perform all these steps.

Another type of lock is inserted into the firing chamber of a firearm preventing chambering of live ammunition as shown in TABLE 1. Some of these devices effectively lock only revolvers. Other devices effectively lock only pistols. Most are ineffective in rifles and shotguns. Many of these devices require a special tool for removal requiring time to find the tool and remove the device.

g. BRIEF SUMMARY OF THE INVENTION

My "Safety Cartridge" is designed to be placed in the firing chamber of any gun for the express purpose of keeping anyone that is not aware of its presence from using the firearm. When fired it will lock the firearm up and make it impossible to place live ammunition in the firing chamber. This will protect the gun owner and anyone else including children in the immediate area from harm. In addition it also makes the gun far faster to use for self defense or police action than any gun lock by simply ejecting the Safety Cartridge from a pistol, rifle, or shotgun or by moving it out-of-line in a revolver. My Safety Cartridge is "Flagged" and easily identified by the gun owner as a Safety Cartridge and not live ammunition. A fired Safety Cartridge is very difficult to remove from a firearm but will not cause damage to the firearm. My Safety Cartridge is designed to save lives of children and perhaps the gun owner himself. The Safety Cartridge is only effective as a lock for automatic pistols, revolvers and bolt action, lever action, pump or automatic rifles and shotguns. It is not an effective lock for double barrel pistols, rifles, or shotguns.

h. BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 Shows a sectioned view of the assembled 9mm Safety Cartridge.

FIG. 2 Shows a sectioned view of the fired 9mm Safety Cartridge.

FIG. 3 Shows the fired 9mm Safety Cartridge.

FIG. 4 Shows a sectioned view of a loaded 9mm pistol which is jammed or locked up by a fired 9mm Safety Cartridge.

FIG. 5 Shows a sectioned view of the assembled .38 Special Safety Cartridge.

FIG. 6 Shows a sectioned view of a loaded .38 Special revolver which is jammed or locked up by a fired .38 Special Safety Cartridge.

FIG. 7 Shows a sectioned view of the assembled .45 ACP Safety Cartridge.

FIG. 8 Shows a sectioned view of the assembled 30-06 Safety Cartridge for a 30-06 rifle.

FIG. 9 Shows a sectioned view of the assembled 12 gauge Safety Cartridge for a 12 gauge shotgun.

FIG. 10 Shows a sectioned view of the assembled .38 Special Safety Cartridge containing a standoff tube to assure proper cartridge length and an o-ring to make it even more difficult to remove from the firearm after it has been fired.

TABLE 1 Shows how the Safety Cartridge differs from other prior art identified in the patent search.

DETAILED DESCRIPTION OF THE INVENTION

The "Safety Cartridge" is made of five major components, the cartridge case, primer, spring, slug and pin. When all components are assembled and placed inside the firing chamber of any gun you will have a device unseen and its presence only known by the owner of the firearm. In order to understand how the Safety Cartridge works you first need to understand as to how it is made and then what happens when it is fired. The cartridge case is the same cartridge case each gun would normally use. The primer is the same primer each gun cartridge would normally use. The spring is an extension spring which holds the Safety Cartridge together. It contains a double coil first end which is anchored to the cartridge case by the pin and a second straight end which is inserted through the hole in the slug and then bent ninety degrees at the front end of the slug. The Safety Cartridge is placed in the firing chamber of a loaded firearm. If an unauthorized person pulls the trigger of said firearm the primer is initiated causing high pressure primer propellant gases to expand within the Safety Cartridge forcing the slug to move down the barrel. The spring is attached to the cartridge case and the slug and it is transformed from a short extension spring to a longer compression spring resulting in a fired Safety Cartridge length several times as long as an unfired Safety Cartridge.